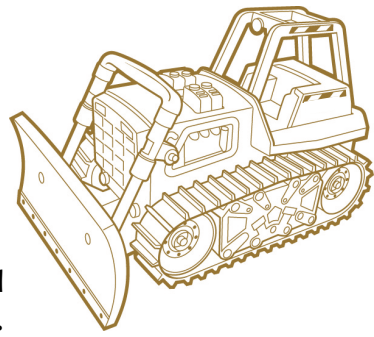


Mulches



Where are they used?

The three conventional mulches are straw, fiber and wood chips. Mulches are used to protect seeds from erosion, moisture loss and animals and are used alone when seeds cannot be established. Mulches are extremely effective at reducing suspended solids, with efficiencies in the 80% and 90% range, and are popular among developers because they are low cost and easy to apply.

Techniques

Straw can be applied by hand or using the faster, less expensive, straw blower - a machine that shoots pieces of straw over the soil surface. Straw mulches need to be “tacked” to the surface so that they are not blown off the site or carried away by overland flow. They can be held in place through spray tackifier (glue) or a fiber mulch. A mechanical option is to “punch” the straw into the soil with the use of a tractor-drawn implement. Straw mulches can be used alone or in combination with grass seed.

Fiber mulches are chopped up paper or wood fiber, and should only be used in combination with seeding or as a tack for straw mulch. Mulch, water, a chemical or organic tackifier, fertilizer, grass seed, and lime can all be applied to the soil in one step using a hydroseeder.

Wood chip mulches are rarely used because of their expense and because they need to be hand-applied. An alternative is to chip trees and underbrush cleared from the site to use as mulch. Mulch is also valuable for permanent landscaping or bioretention areas.

Limitations and challenges

Straw and fiber mulches are generally recommended for 3:1 or flatter slopes, but wood chip mulch can be used on slopes as steep as 1.5:1. None of these methods should be used to stabilize channels or other areas of concentrated flow. Erosion control blankets or mats are more appropriate for these areas.

Innovations and improvements

Compost can be used as a mulch. It has an efficiency on par with wood fiber and can act as a longer term control in addition to enhancing the soil.

Fast Facts - Mulches

Approximate Cost: \$0.25-\$0.35 / square yard

*Straw mulch applied with a blower and chemical tackifier

Effectiveness	Low	Mod	High
Erosion/Sediment Control			X
Long-Term Pollutant Reduction	X		
Habitat/Stream Protection	X		

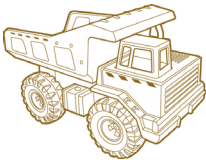
Ease of Application	Difficult	Average	Easy
Installation			X
Maintenance		X	

Limitations

- Steep slopes
- Severe storms



Left: Using a blower to apply a wood chip mulch.



Find more construction site educational materials at:

cleanwatermn.org/MS4toolkit



MINNESOTA WATER
LET'S KEEP IT CLEAN